



Shenzhen Belling Efficiency Testing Laboratory Co.,Ltd.
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Client:

LumCAT: LD4R-27K-HO

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 119.96

LampCAT:

Current(A): 0.1460

Lamp flux(lm): -1.0

Power (W): 17.34

Number of Lamps: 1

PF: 0.9887

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1504.28, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 86.76

Central intensity(cd): 4605.540, Maximum intensity(cd): 4616.258

Angle of maximum intensity: C=90.0 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=33.3

[C90/270]Total=33.3

Field angle(10%Imax): [C0/180]Total=51.0

[C90/270]Total=51.8

Maximum s/h(1/2): C0_180=0.60 C90_270=0.63

Maximum s/h(1/4): C0_180=0.56 C90_270=0.59

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.14%

Down flux rate of LUM(%): 99.86%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 98.941%

Equipment: GMS-3000
Temperature(°C): 25

Date:
Humidity(%): 59%

Operator: jarvis

LD4R-27K-HO

Zonal flux distribution table

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$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4605.540	0.000	0	0.00%	0.00%
5.0	4311.953	106.606	106.606	0.00%	7.09%
10.0	3732.268	287.767	394.373	0.00%	26.22%
15.0	2729.961	383.335	777.708	0.00%	51.70%
20.0	1441.597	343.795	1121.503	0.00%	74.55%
25.0	509.850	204.671	1326.174	0.00%	88.16%
30.0	139.217	82.140	1408.314	0.00%	93.62%
35.0	60.154	29.359	1437.673	0.00%	95.57%
40.0	36.613	16.145	1453.818	0.00%	96.65%
45.0	26.428	11.672	1465.49	0.00%	97.42%
50.0	19.361	9.252	1474.743	0.00%	98.04%
55.0	14.987	7.468	1482.211	0.00%	98.53%
60.0	11.570	6.139	1488.35	0.00%	98.94%
65.0	8.555	4.892	1493.242	0.00%	99.27%
70.0	6.057	3.700	1496.942	0.00%	99.51%
75.0	3.922	2.608	1499.55	0.00%	99.69%
80.0	2.110	1.614	1501.164	0.00%	99.79%
85.0	0.686	0.760	1501.923	0.00%	99.84%
90.0	0.013	0.191	1502.115	0.00%	99.86%
95.0	0.026	0.011	1502.125	0.00%	99.86%
100.0	0.026	0.014	1502.139	0.00%	99.86%
105.0	0.026	0.014	1502.153	0.00%	99.86%
110.0	0.026	0.014	1502.167	0.00%	99.86%
115.0	0.091	0.029	1502.196	0.00%	99.86%
120.0	0.065	0.038	1502.234	0.00%	99.86%
125.0	0.039	0.024	1502.258	0.00%	99.87%
130.0	0.091	0.028	1502.286	0.00%	99.87%
135.0	0.155	0.050	1502.336	0.00%	99.87%
140.0	0.259	0.077	1502.412	0.00%	99.88%
145.0	0.492	0.125	1502.538	0.00%	99.88%
150.0	0.945	0.211	1502.749	0.00%	99.90%
155.0	1.385	0.295	1503.044	0.00%	99.92%
160.0	1.890	0.343	1503.387	0.00%	99.94%
165.0	2.291	0.345	1503.732	0.00%	99.96%
170.0	2.563	0.288	1504.02	0.00%	99.98%
175.0	2.770	0.191	1504.21	0.00%	100.00%
180.0	2.984	0.069	1504.279	0.00%	100.00%

Equipment: GMS-3000
Temperature($^{\circ}$ C): 25

Date:
Humidity(%): 59%

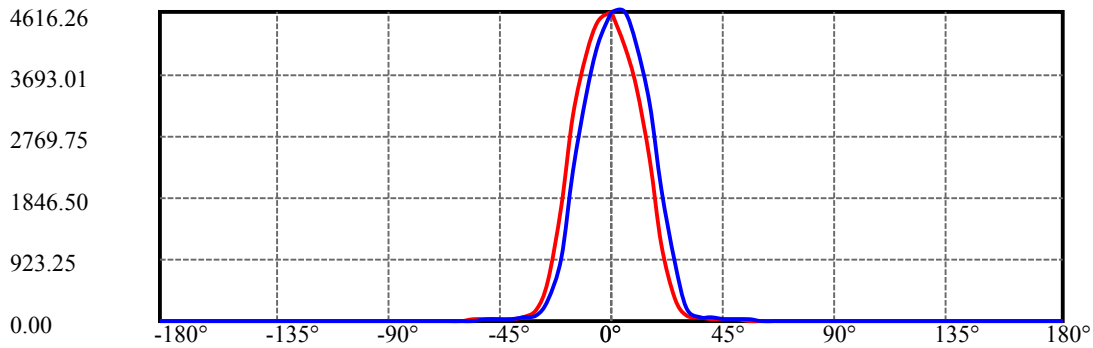
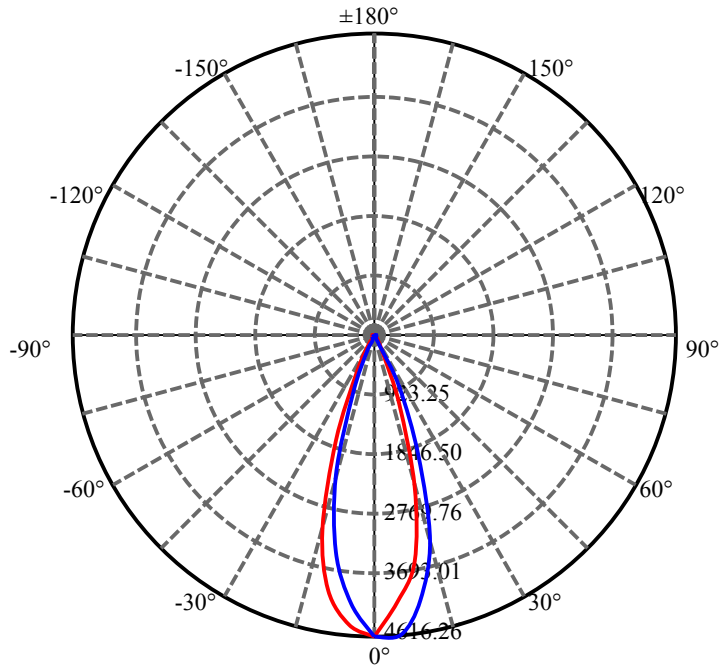
Operator: jarvis

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1408.31	N.A.	93.62%
0-40	1453.82	N.A.	96.65%
0-60	1488.35	N.A.	98.94%
0-90	1502.11	N.A.	99.86%
0-120	1502.23	N.A.	99.86%
0-180	1504.28	N.A.	100.00%
60-90	13.76	N.A.	0.92%
90-120	0.12	N.A.	0.01%
90-130	0.17	N.A.	0.01%
90-150	0.63	N.A.	0.04%
90-180	2.10	N.A.	0.14%
0-22.00	1203.42	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	394.37
10-20	727.13
20-30	286.81
30-40	45.50
40-50	20.92
50-60	13.61
60-70	8.59
70-80	4.22
80-90	0.95
90-100	0.02
100-110	0.03
110-120	0.07
120-130	0.05
130-140	0.13
140-150	0.34
150-160	0.64
160-170	0.63
170-180	0.19



C0/C180: —

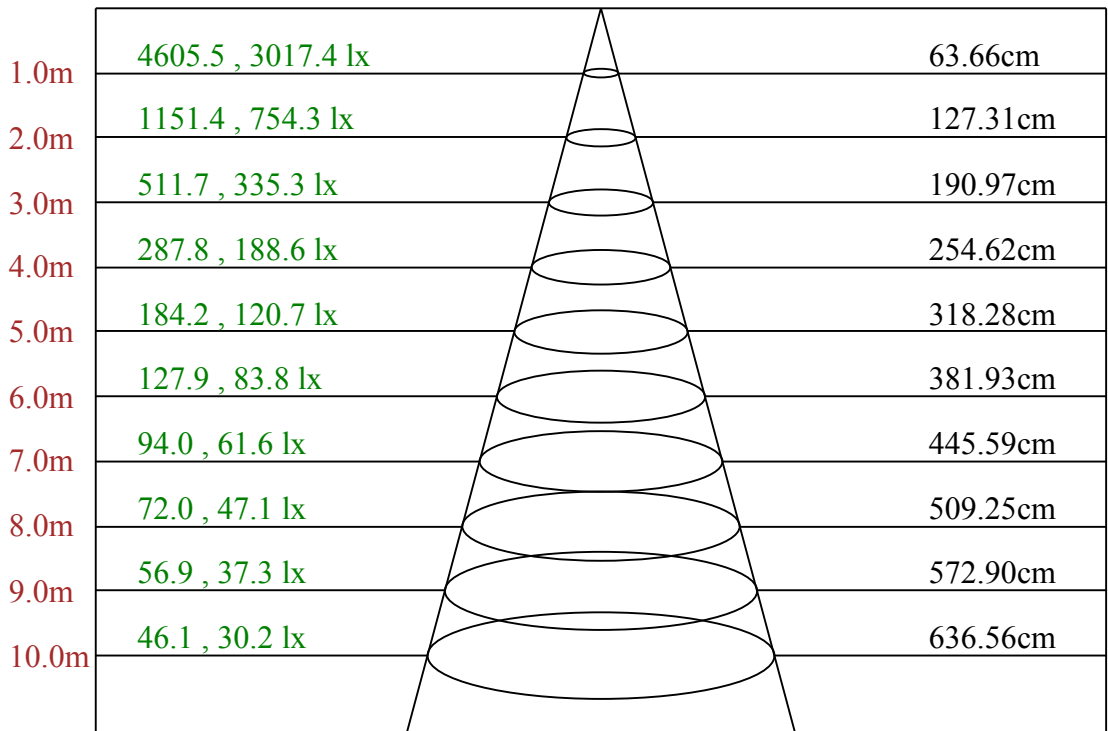
C90/C270: —

Field angle(10%Imax):C0/180Left:26.7 Right:24.3

:C90/270Left:23.8 Right:28.0

Beam Angle(50%Imax):C0/180Left:17.9 Right:15.4

:C90/270Left:14.6 Right:18.7



Max , Ave Beam angle of C90 plane 35.31

Intensity data(cd)

C/ γ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	4605.54	4112.04	3508.84	2417.57	1132.68	350.16	97.32	52.80	32.30
22.5	4605.54	4127.36	3500.55	2394.79	1121.50	343.74	91.94	50.94	32.72
45.0	4605.54	4129.85	3460.18	2372.22	1121.30	345.81	91.53	50.11	33.13
67.5	4605.54	4124.05	3493.51	2404.31	1159.40	372.73	97.53	51.35	32.92
90.0	4605.54	4616.26	4129.64	3251.65	1986.44	878.61	194.03	69.37	43.90
112.5	4605.54	4599.69	4096.51	3235.09	1990.58	751.47	195.06	69.78	44.31
135.0	4605.54	4547.93	4071.66	3249.58	1928.46	747.32	217.43	71.03	44.11
157.5	4605.54	4512.72	4019.89	3160.54	1862.20	712.12	197.13	69.58	42.45
180.0	4605.54	4471.31	3980.55	3071.50	1729.67	607.76	172.28	65.23	39.97
202.5	4605.54	4458.88	3912.21	2967.97	1663.41	550.61	151.78	62.33	39.14
225.0	4605.54	4407.12	3889.44	2926.55	1576.44	536.11	151.78	60.47	37.89
247.5	4605.54	4405.05	3866.66	2951.40	1630.28	552.88	171.66	65.85	37.27
270.0	4605.54	4128.60	3371.96	2222.51	942.59	301.91	86.35	53.01	31.27
292.5	4605.54	4114.73	3429.11	2276.76	978.42	335.46	94.01	54.25	31.48
315.0	4605.54	4119.08	3485.44	2375.53	1090.03	379.15	111.41	59.43	31.27
337.5	4605.54	4116.59	3500.14	2401.42	1152.15	391.78	106.23	56.95	31.68
360.0	4605.54	4112.04	3508.84	2417.57	1132.68	350.16	97.32	52.80	32.30
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	24.85	17.60	13.67	10.56	7.66	5.38	3.52	1.86	0.41
22.5	24.85	18.02	14.08	10.56	7.87	5.59	3.31	2.07	0.41
45.0	25.06	18.02	14.08	10.98	8.28	5.80	3.52	1.86	0.83
67.5	24.44	18.02	14.29	10.98	8.08	5.59	3.52	1.86	0.62
90.0	29.82	22.36	16.98	13.46	9.94	7.04	4.97	2.90	1.24
112.5	29.40	21.74	16.57	13.05	9.94	7.04	4.76	2.69	0.83
135.0	29.20	21.74	16.15	13.05	9.73	7.04	4.76	2.49	0.83
157.5	28.99	21.12	16.36	12.63	9.53	6.83	4.35	2.69	0.83
180.0	28.58	20.91	15.95	12.42	9.11	6.42	4.35	2.49	0.83
202.5	27.96	20.29	15.74	12.22	8.90	6.42	4.35	2.28	0.83
225.0	27.96	20.09	15.53	12.01	8.90	6.42	4.35	2.07	0.83
247.5	26.92	19.88	15.32	11.80	8.70	6.21	3.93	2.07	0.83
270.0	23.40	17.60	13.87	10.56	7.66	5.38	3.31	1.66	0.41
292.5	23.61	17.60	13.67	10.15	7.46	5.18	3.11	1.45	0.41
315.0	23.61	17.60	13.67	10.35	7.46	5.38	3.31	1.66	0.41
337.5	24.23	17.19	13.87	10.35	7.66	5.18	3.31	1.66	0.41
360.0	24.85	17.60	13.67	10.56	7.66	5.38	3.52	1.86	0.41
C/ γ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.21
22.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45.0	0.00	0.00	0.00	0.00	0.00	0.41	0.21	0.00	0.21
67.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.21
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
112.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
157.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
202.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
225.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
247.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
270.0	0.21	0.21	0.41	0.00	0.41	0.41	0.41	0.41	0.62
292.5	0.00	0.21	0.00	0.21	0.00	0.21	0.21	0.21	0.21
315.0	0.00	0.00	0.00	0.00	0.00	0.21	0.21	0.00	0.00
337.5	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00
360.0	0.00	0.00	0.00	0.00	0.00	0.21	0.00	0.00	0.21

LD4R-27K-HO

Intensity data(cd)

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.21	0.41	0.62	1.04	1.66	2.07	2.49	2.69	2.90
22.5	0.21	0.41	0.62	1.24	1.45	1.86	2.28	2.49	2.69
45.0	0.21	0.41	0.62	1.04	1.45	2.07	2.49	2.69	2.90
67.5	0.21	0.41	0.62	1.04	1.24	2.07	2.28	2.49	2.90
90.0	0.00	0.21	0.41	0.83	1.24	1.66	2.28	2.49	2.69
112.5	0.21	0.00	0.21	0.83	1.24	1.45	2.07	2.49	2.69
135.0	0.00	0.00	0.41	0.83	1.24	1.66	2.07	2.49	2.49
157.5	0.00	0.00	0.21	0.83	1.24	1.86	2.07	2.07	2.49
180.0	0.00	0.21	0.41	0.62	1.24	1.66	2.07	2.49	2.69
202.5	0.00	0.00	0.41	0.83	1.24	1.66	2.07	2.49	2.69
225.0	0.00	0.00	0.21	0.62	1.04	1.66	2.07	2.49	2.69
247.5	0.00	0.00	0.21	0.62	1.24	1.66	2.07	2.28	2.69
270.0	0.83	0.83	0.83	1.45	2.07	2.49	2.90	3.11	3.52
292.5	0.41	0.41	0.83	1.24	1.66	2.28	2.49	2.69	2.90
315.0	0.21	0.41	0.83	1.04	1.45	2.07	2.49	2.90	2.69
337.5	0.00	0.41	0.41	1.04	1.45	2.07	2.49	2.69	2.69
360.0	0.21	0.41	0.62	1.04	1.66	2.07	2.49	2.69	2.90
C/γ(°)	180.0								
0.0	2.98								
22.5	2.98								
45.0	2.98								
67.5	2.98								
90.0	2.98								
112.5	2.98								
135.0	2.98								
157.5	2.98								
180.0	2.98								
202.5	2.98								
225.0	2.98								
247.5	2.98								
270.0	2.98								
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315.0	2.98								
337.5	2.98								
360.0	2.98								